

**REMARKS**

Claims 17, 18, 21-23, and 34-37 are pending in this application. Claims 17 and 18 are amended herein, putting these claims, and claims 21-23 and 34-37, which depend on them, in condition for allowance. Support for the amendments to claim 17 and the claims that depend on it can be found, at least, in Example 1 in the specification. Support for claim 18 can be found, at least, on page 5, lines 1-11, of the specification. Applicants respectfully request that the amended claims be promptly allowed.

**35 U.S.C. § 102**

In the final Office Action, mailed August 28, 2006, the Office maintained the rejection of claims 17 and 21 in item 2 because it asserted that they were anticipated by U.S. Patent No. 5,443,966 ("Fairweather") under 35 U.S. C. § 102(b). The Office also maintained the rejection of claims 17 and 21 in item 3 because it asserted that they were anticipated under § 102(a) by Fishman et al. Society for Neuroscience Abstracts, vol. 22, p. 1705 (1996) ("Fishman"). Both of these rejections were maintained because the Office found the term "comprising" to allow the claims to encompass a hybrid fragment of tetanus toxin having fragment C and 11 amino acid residues of fragment B or more amino acids including the full length tetanus toxin protein. The Office asserted that Fairweather discloses a protein with 121 amino acid residues of fragment B plus all 451 amino acid residues of fragment C and Fishman discloses the full length tetanus toxin protein.

Claim 17 has been amended to recite "a hybrid fragment of tetanus toxin *consisting of* a fragment C and a fraction of fragment B having 11 amino acid residues

(amino acids 854-1315 of the tetanus toxin holotoxin) . . . .” (Emphasis added.) Thus, the claimed fragment of tetanus toxin does not include either 121 amino acids of fragment B or the full length tetanus toxin protein. Therefore, the hybrid fragment of tetanus toxin claimed in claim 17 and the composition claimed in claim 21 are not anticipated by either Fairweather or Fishman. Accordingly, Applicants respectfully request that the rejections under 35 U.S.C. § 102 be withdrawn.

**35 U.S.C. § 103**

The Office also maintained the rejection of claims 17, 18, 21, 23, 34, and 35 as being rendered obvious, under 35 U.S.C. § 103, by Fishman in view of Mueller (report, ARO-27890.1-LS, Order No. AD-A290 501, NTIS, p. 1-15 (1994)) (“Mueller”), and Hohne-Zell et al., FEBS Lett., vol. 336, pp. 175-80 (1993) (“Höhne-Zell”), in item 6. Similarly, the Office maintained the rejection of claims 17, 21, 22, 36, and 37 as being rendered obvious by Fishman in view of WO 95/04151 (“Khan”) and Mueller, in item 7.

The Office asserted that because Fishman reads on claim 17, one of skill in the art would be motivated to combine its teachings with Mueller and Höhne-Zell to practice the invention of claims 17, 18, 21, 23, 34, and 35, or to combine its teaching with Kahn and Mueller to practice the invention of claims 17, 21, 22, 36, and 37, both with a reasonable expectation of success. This ground for rejection is respectfully traversed.

Fishman does not read on claim 17 as amended, because the claimed fragment is not the entire tetanus toxin. Neither Mueller, Höhne-Zell, nor Zhan cure the deficiencies of Fishman, because neither recites a fraction of tetanus toxin fragment B having 11 amino acids residues and fragment C. Therefore, the combinations of these

references do not render the subject matter of claims 17, 18, 21, 23, 34, and 35 obvious.

Because these references do not render the claims obvious, Applicants respectfully request that these rejections under 35 U.S.C. § 103 be withdrawn.

Applicants respectfully request that this Amendment be entered, placing claims 17, 18, 21-23, and 34-37 in condition for allowance.

Applicants have attached a recent Advisory Action issued in co-pending application Serial No. 09/501,787 for the Examiner's convenience.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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